

WHAT IS CLAIMED IS:

1. A broadcast television system committee (BTSC) decoder, comprising:
 - an intermediate frequency (I/F) demodulator configured to convert and demodulate received I/F signals to digital audio samples;
 - a digital signal processor (DSP) configured to BTSC-decode the digital samples; and
 - an all digital interface that couples the I/F demodulator to the DSP.
2. The decoder of claim 1, wherein the received analog I/F signal is a carrier signal.
3. The decoder of claim 1, wherein the digital samples are composite BTSC samples formatted in accordance with multi-channel television sound (MTS) standards.
4. The decoder of claim 1, wherein the digital interface does not include a digital to analog converter (DAC).
5. The decoder of claim 1, wherein the digital interface does not include a gain control device.
6. The decoder of claim 1, wherein the digital interface does not

include an analog to digital converter (ADC).

7. The decoder of claim 1, wherein the DSP does not include an automatic gain control (AGC) device.

8. A BTSC decoder including an (i) intermediate frequency (I/F) demodulator configured for demodulating received analog I/F signals and converting the received I/F analog signals to digital form and (ii) a digital signal processor (DSP) configured to process the digital signals, the decoder comprising a digital interface configured to couple the I/F demodulator and the DSP.

9. The decoder of claim 8, wherein the DSP does not include an automatic gain control device.

10. The decoder of claim 8, further comprising a scalable digital output.

11. The decoder of claim 8, wherein the digital interface is all digital.

12. The decoder of claim 8, wherein the digital interface does not include a digital to analog converter (DAC).

13. The decoder of claim 8, wherein the digital interface does not include an analog to digital converter (ADC).

14. The decoder of claim 8, wherein the digital interface permits the digital signal to be transferred from the I/F demodulator to the DSP in a purely digital domain.

15. A method for decoding an analog television audio signal, comprising:
receiving a radio frequency (RF) signal;
down-converting the received RF audio signal to an intermediate frequency signal;
converting the IF audio signal to digital samples;
FM modulating and decimating the digital samples to a lower data rate; and
providing the decimated digital samples to a digital signal processor (DSP) through an all digital interface.